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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,953	03/11/2004	Jeff Davis	034-04-001	8027

7590

09/14/2005

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EXAMINER

MCMAHON, MARGUERITE J

ART UNIT	PAPER NUMBER
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3747

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/799,953

Applicant(s)

DAVIS, JEFF

Examiner

Marguerite J. McMahon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 and 18 is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-16, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 9 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 9, 12-16, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartman et al (6,345,611) in view of Marsee (4,086,892). Hartman et al show a gas engine supply apparatus comprising a first reservoir (unnumbered, within heat exchanger 10) defining an enclosure suited for containing gas, and having an input port 22 and 42 adapted to connect to a supply of gas 12 and an output port 96, a channel 78 (which includes tubular wall 68), adapted to receive coolant from a gas engine and mounted with the first reservoir such that the channel is in thermal communication therewith, the exhaust channel comprising a first port 56 adapted to receive coolant from the gas engine, a second port 86 adapted to allow coolant to exit the channel, and a path 78 from the first port to the second port, where the coolant along a portion of the path is in thermal communication with the first reservoir, wherein the channel along the portion of the path comprises a cylinder which is in physical contact with the first reservoir, wherein the first reservoir comprises a cylinder, wherein the input port of the first reservoir comprises a pressure regulator 18 adapted to connect to a supply of gas 12 at an unregulated input port and connected to the first reservoir at a regulated output port 40.

Hartman et al show everything except employing a second reservoir comprising a cylinder and a second pressure regulator, utilizing exhaust gas as the heating medium, the first port comprising a flexible hose, and the particular configuration created by the use of two cylinders.

It would have been obvious to one of ordinary skill in the art to modify Harman et al by providing a second cylinder and a second pressure regulator, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St Regis Paper Co., v. Bemis Co.*, 193 USPQ 8. In addition, it should be noted that the specification, at lines 5-6 of page 4 state that "either of the reservoirs R1, R2 can be omitted" thus providing evidence that the device would function with either one or two of the first and second reservoirs.

Furthermore, it would have been obvious to one having ordinary skill in the art to modify Harman et al by employing exhaust gas as the heating medium in lieu of coolant, since these are art recognized equivalents, known for the same purpose, as evidenced by Marsee (4,086,892) which states at column 2, lines 17-20, that the chamber (containing fuel mixture) may be "heated by providing it with a jacket through which hot engine coolant or exhaust gas circulates."

In addition, it would have been obvious to modify Hartman et al by utilizing a flexible hose in lieu of line 20, since the two are functional equivalents and the device would function in the same way in either case.

Finally, the particular configuration created by the use of two reservoirs would have been an obvious matter of design choice, as the device would function in the same way regardless of the whether or not an additional reservoir was provided.

Allowable Subject Matter

Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 17 and 18 are allowed.

Conclusion

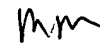
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 703-308-1956. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yuen Henry can be reached on 703-308-1946. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


MARGUERITE MCMAHON
PRIMARY EXAMINER